

## REMARKS

Favorable consideration of this application is respectfully requested.

Claims 1-21 are currently active in this case. Claims 11-21 have been added by way of the present amendment. Each new claim is supported by the specification and claims as originally submitted and no new matter has been added.

In the outstanding Official Action Claims 1-10 were rejected under 35 U.S.C. §103(a) over *Woodworth et al.* (U.S. Pat No. 4,876,737, hereinafter *Woodworth*).

Applicants respectfully traverse the rejection of Claim 1 under 35 USC §103(a) as being unpatentable over *Woodworth* in view of Starband. Claim 1 recites:

***An electronic module for use in a wireless modem system comprising:***

***a wireless modem having an enclosure;***

***a power inserter circuit contained within the modem enclosure;***

***a power source electrically connected to the modem and the power inserter circuit; and***

***an output connector connected to the modem and the power inserter circuit;***

***wherein the output connector connects to an external transverter and supplies electrical power and an electrical signal to the transverter.***

However, the combined references fail to teach or suggest similar subject matter.

As a preliminary matter, Applicants respectfully note that as admitted in the outstanding Official Action, the prior art does not discuss all the elements of the figures and confuses identification for components and ports between figures. Therefore, Applicants respectfully submit that the cited prior art be withdrawn because a lack of discussion of the elements of the figures and a great deal of confusion exists for the identification of parts and ports between the figures, leaving Applicants with little ability to effectively address that art in response.

Keeping the problems associated with the prior art in mind, Applicants further respectfully submit that the combination of *Woodworth* and Starband fail to teach or suggest the claimed invention.

Applicants respectfully traverse the assertion in the outstanding Official Action that states that the *Woodworth* system teaches "a wireless modem having an enclosure (Fig. 1 shows ...)." In fact, a close review of Fig. 1 shows two separate systems (a transmitter and a receiver) neither of which are indicated as being together in an enclosure as claimed in Claim 1. More importantly, the two separate components of Fig. 1 are a transmitting system that modulates a signal that is eventually transmitted on antenna 14, and a receiving system that receives a signal on antenna 16, that signal eventually being demodulated at data demod 32.

However, Applicants' claimed invention is a wireless modem having an enclosure, which Applicants respectfully submit is both a modulator and demodulator in the enclosure. Referring back to Fig. 1, *Woodworth's* overall system is for a satellite communications system, therefore antennas 14 and 16 are spaced a considerable distance apart and the modulator 2 and demodulator 32 cannot be enclosed in single enclosure.

And, as noted in *Woodworth*, *Woodworth's* invention comprises a modulator at a transmitter end and a separate receiver end including a tracking down converter (TDC) (Column 1, line 40-55). However, again, Applicants' Claim 1 specifically recites the wireless modem (modulator demodulator) having an enclosure.

Applicants respectfully traverse the assertion in the outstanding Official Action that states *Woodworth* teaches "a power inserter circuit contained within the modem enclosure (Figure 6 ...)." As noted above, *Woodworth* does not teach a modem enclosure. And, Applicants respectfully traverse the assertion that states *Woodworth* teach "a power source electrically connected to the modem", because *Woodworth* does not teach a modem.

Applicants respectfully traverse the assertion that states that *Woodworth* "specifically shows the typical application of a power inserter included within the housing of a modem or receiver." As a preliminary matter, Applicants respectfully submit that a modem is not the same as a receiver. Furthermore, Applicants respectfully note that the outstanding Official Action states that the power inserter included within the housing of a modem or receiver taught by *Woodworth* does not include a teaching of a similar design in the transmit chain. Therefore, *Woodworth* does not show where the output connector connects to an external transverter.

Applicants respectfully note that such an external transverter would not make sense in the application of *Woodworth* because *Woodworth* only shows a transmit chain or a received chain because his transmitter and receiver are separate items at separate stations (one station being a satellite and a second station being a ground station). Further, for the same reason it doesn't make sense for *Woodworth* to have an output connector that connects to a transverter, because a transverter is a transmitting and receiving converter and a transmitting and

receiving converter would make no sense to be applied to the output of only a transmitter, or only a receiver as taught by *Woodworth*.

Applicants respectfully note that *Woodworth* does mention in passing the use of modems (e.g., *Woodworth's* abstract). However, no embodiments or details other than the satellite and ground station embodiments are described.

Applicants respectfully note citation of the Starband documents that appear to be page 12, 18 and 19 of Starband service and system description manuals.

Applicants respectfully traverse the assertion in the outstanding Official Action that equates an external transverter to what appears to be the LNB and signal transmitter of the Starband system description. According to the Starband system description, both the signal transmitter and LNB of the Starband system are separate components and each are connected by separate cables to the Starband model 180. However, as claimed in Claim 1 "the output connector connects to an external transverter and supplies electrical power and an electrical signal to the transverter." However, the Starband system description clearly indicates one output from the Starband model 180 connected to an LNB via a coaxial cable and a second output of the Starband 180 connected to a signal transmitter. Therefore, Starband fails to teach or suggest an output connector connected to the modem and the power inserter circuit that connects to an external transverter and supplies both electrical power and electrical signal to the transverter.

Applicants respectfully traverse the assertion that states that "cable connections of this Starband system necessarily carry a compatible VDC power out to the antenna mounted transmit/received conversion and amplification circuits with simultaneous RF signals." In fact, Applicants respectfully submit that the Starband system does not necessarily carry VDC power because the VDC power may be provided in any number of ways known in the art including a separate

voltage line supplied directly to any of the signal transmitter and/or LBN. Furthermore Applicants respectfully note that the cited pages of the Starband system make no mention of how VDC power is carried to the antenna mounted components.

Applicants further respectfully traverse the assertion that states that "this system can attach an LNBF to amplify and down convert satellite television signals to an indoor receiver where the television receiver inserts VDC to drive the outdoor LNBF in the same manner as taught by *Woodworth*." Applicants admit that many configurations of the components of the Starband system are possible, but only one configuration is shown. And, the Starband system description makes no indication of any such attachment or insertion of VDC to drive an outdoor LNBF.

Applicants respectfully traverse the combination of *Woodworth* and the Starband system in a manner that purportedly teaches the present invention. Applicants respectfully submit that neither *Woodworth* nor the Starband system teach a transverter as claimed in Claim 1. Furthermore, neither *Woodworth* nor the Starband system teach or suggest supplying both a data signal and power signal to a transverter from a power inserter/modem combination in a single enclosure.

Furthermore, Applicants respectfully submit that the Starband system description does not teach supplying power to a transverter nor to individual LNB and signal transmitter components. However, even if the Starband system did provide power via the described separate cables to the individual LNB and signal transmitter components, such a description does not teach or suggest a cable providing signal and power to a transverter (a specific unit that is both a transmitting and receiving converter). As noted in the Starband system description the Starband KU band low noise block (LNB) amplifier "receives the signal transmitter from the satellite to your dish and strengthens it." And, the signal

transmitter is described as supplying "the power to the signal you transmit up to the satellite." Neither descriptions of the Starband system components describe a transverter.

Based on each of the discussions above, Applicants respectfully submit that Claim 1 is patentable over the cited references.

Applicants respectfully traverse the rejection of Claim 8 under 35 USC §103(a) as being unpatentable over Woodworth in view of Starband. In addition to the above discussion related to claim 1, which may also be applied to corresponding elements of Claim 8, Applicants respectfully traverse the assertion in the outstanding Official Action that equates Woodworth's key components C58 and L22 of Woodworth's Fig. 7 as teaching or suggesting isolation of modem components from the DC power sent to the transverter and isolation of the power source from the electrical signal sent to the transverter.

However, Woodworth's Fig. 7 is not a modulator demodulator (modem). More importantly, Woodworth's Fig. 7 is Tracking Down Converter (TDC). As such, Woodworth's Fig. 7 does not send electrical power or signals to a transverter as required in Claim 8. Accordingly, Applicants respectfully submit that Claim 8 is further patentable over Woodworth and Starband.

Applicants respectfully submit new Claims 11-21. Each new claim specifically describes a cable system using a wireless modem structured according to the present invention. The wireless modem is uniquely well suited. Applicants respectfully submit that new Claims 11-21 are patentable for at least the same reasons noted above with respect to Claim 1. Furthermore, the new claims are specifically directed toward a cable system that is entirely separate and apart from a typical satellite receiving and/or transmitting system such as described in *Woodworth*, *Starband*, and the like.

The application of modem transverter arrangement according to the present invention in conjunction with a cable system using wireless headends is an entirely unique system within the cable and wireless arts and provides advantages not contemplated in relevant prior art systems. The use of a power inserter as a IF/DC shield for the modem output and/or dc power supply (e.g., Claims 13, 14, and 16-19) is a feature, in combination with a cable system using wireless headends that is neither taught nor suggested by any known prior art. Accordingly, Applicants respectfully submit that new Claims 11-21 are further patentable over the cited references.

Based on the patentability of the independent Claims 1, 8 and 11, Applicants further respectfully submit that dependent claims 2-7, 9, 10 and 12-21 are also patentable.

Consequently, no further issues are believed to be outstanding, and it is respectfully submitted that this case is in condition for allowance. An early and favorable action is respectfully requested.

Respectfully submitted,

REED SMITH LLP

Dated: June 28, 2004

Two Embarcadero Center  
Suite 2000  
PO Box 7936  
San Francisco, CA 94120-7936

**Direct Dial (415) 659-5927**  
(415) 543-8700 Telephone  
(415) 391-8269 Facsimile

By: 

Name: John W. Carpenter

Registration No. 39,129

Attorney for Applicant